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EXAMINER	
SHIMIZU, MATSUICHIRO	

ART UNIT	PAPER NUMBER
2635	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/265,073	OVARD ET AL.	
	Examiner	Art Unit	
	Matsuichiro Shimizu	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42,46 and 49-66* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42,46 and 49-66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

The examiner acknowledges new claims 64-66, and currently amended claims 2, 11-12 and 49-50.

Response to Arguments

Applicant's arguments filed on 9/23/2004 have been fully considered but they are not persuasive.

Regarding applicant's argument (line 19, page 19 to line 4, page 24), Wood teaches the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal (Fig. 5, digitally transmitted data signal via host computer or housing), MacLellan teaches, in the art of tag identification system, a communication station remotely located with respect to the housing (Fig. 1, interrogator (103) remotely connected via LAN (102)) to extend the range of communication with the tag or transponder to extend the range of communication, and Cuckler teaches, in the art of remote communication system, base or repeater station (or remote station) generating the forward link communication signal comprising a modulated signal (Figs. 1 and 3, col. 6, lines 41-52, forward signal of modulated pulse signal via antenna 12 to antenna 13) to provide wireless signal. Since prior arts of Wood and MacLellan are common in the art of tag identification system, and prior arts of Wood and Cuckler are common in the art of remote or wireless communication, they are combinable to teach a communication station remotely located with respect to the housing, and generating the forward link communication signal comprising a modulated signal.

Regarding applicant's argument (lines 8-16, page 24), MacLelland teaches the communication station including the adjustment of an electrical characteristic of the forward link communication signal (Fig. 8, col. 7, lines 26-47, power adjustment associated with downlink transmission or interrogation transmission-100% AM or 50% AM or 100% power level and 50% power level).

Regarding applicant's argument (lines 1-18, page 25), MacLelland teaches the the wireless communication system according to claim 1 wherein the communication station is configured to convert the forward link communication signal comprising the modulated signal from a first communication medium type (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits); modulated digital signal out of computer 101 associated with application processor) to a second communication medium type (Figs. 1-3, second modulated signal out of 204) comprising a wireless medium and different than the first communication medium type claimed in claim 51. That is, one skilled in the art recognizes "modulated signal", whenever there is a transmission of signal, is inherently the modulation of data signal with continuous wave or carrier frequency (note: Digital and Analog Communication Systems. Leon W. Couch, 1983 page 52).

Regarding applicant's argument (line 19, page 25 to line 9, page 26), MacLelland teaches the wireless communication system according to claim 1 wherein the communication circuitry comprises a wired medium configured to communicate the forward link wireless signal comprising the modulated signal intermediate (Fig. 1, wired or intermediate associated with interrogator 103 and application processor 101) the housing and the communication station (Figs. 1-3, first modulated signal within 101-102 and communication stations 103 (wired LAN circuits); digital signal out of

computer) as claimed in claim 53. That is, one skilled in the art recognizes "modulated signal", whenever there is a transmission of signal, is inherently the modulation of data signal with continuous wave or carrier frequency over the channel ((cable channel or wireless channel), note: Digital and Analog Communication Systems. Leon W. Couch, 1983 page 52).

Regarding applicant's argument (lines 10-14, page 26, line 18, page 26 to line 11, page 28), Wood teaches the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal (Fig. 5, digitally transmitted data signal via host computer or housing), MacLellan teaches, in the art of tag identification system, a communication station remotely located with respect to the housing (Fig. 1, interrogator (103) remotely connected via LAN (102)) to extend the range of communication with the tag or transponder to extend the range of communication, and Cuckler teaches, in the art of remote communication system, base or repeater station (or remote station) generating the forward link communication signal comprising a modulated signal (Figs. 1 and 3, col. 6, lines 41-52, forward signal of modulated pulse signal via antenna 12 to antenna 13) to provide wireless signal. Since prior arts of Wood and MacLellan are common in the art of tag identification system, and prior arts of Wood and Cuckler are common in the art of remote or wireless communication, they are combinable to teach a communication station remotely located with respect to the housing, and generating the forward link communication signal comprising a modulated signal.

Regarding applicant's argument (lines 19-20, page 28 and lines 1-13, page 29), Cuckler teaches, in the art of remote communication system, base or repeater station (or remote station) generating the forward link communication signal

comprising a modulated signal (Figs. 1 and 3, col. 6, lines 41-52, forward signal of modulated pulse signal via antenna 12 to antenna 13) to provide wireless signal, wherein Wood, MacLellan, Cuckler and Pidwerbesky teach interrogation system, and therefore, they are combinable.

Regarding applicant's argument (lines 16-20, page 30), MacLellan teaches the source comprises a housing and the first communicating comprises communicating externally of the housing (Fig. 1, first communicating is between housing 101 and interrogator or base station 103).

Regarding applicant's argument (lines 1-4, page 31), MacLellan teaches the method of claim 58 wherein the modulating comprises RF modulating (Fig. 1, modulated rf signal to tag 105; note: Digital and Analog Communication Systems. Leon W. Couch, 1983 page 52).

Regarding applicant's argument (lines 5-7, page 31), Pidwerbetsky teaches the method of claim 62 wherein the modulating comprises RF modulating (Fig. 2, modulator 202 to generate modulated rf signal to specific tag 105 via antenna 204) a carrier signal (Fig. 2, carrier signal from radio signal source 201) using a data signal (Fig. 2, information signal 200a) configured to implement polling of the transponder (col. 12, lines 12-18, polling tags 105).

Therefore, rejection of claims 1-42, 46 and 49-66 follows:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 6-8, 11-13, 16-22, 24-25, 27-29, 33-37, 41-42, 51-53, 55-57 and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood, Jr. (5,842,118) in view of MacLellan et al. (5,649,296) and Cuckler et al. (3,733,602).

Regarding claim 1, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system) comprising: an interrogator (col. 5, lines 25-27, the host computer acting as a master or interrogator) including: a housing (col. 5, lines 34-38, common housing) including circuitry configured to generate a forward link communication signal (col. 5, lines 30-33 and lines 45-47, forward link command (or function) generated at the host computer acting as master or interrogator); communication circuitry configured to communicate the forward link communication signal (Fig. 5, col. 12, lines 28-44, RF circuitry) and to radiate a forward link wireless signal corresponding to the forward link communication signal (Fig. 5, col. 12, lines 28-44, antennas - X1 and X2); and a remote communication device (col. 3, lines 53 to col. 4, line 16, device or transponder (16)); and wherein the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal (Fig. 5, digitally transmitted data

signal via host computer). But Wood does not disclose a communication station remotely located with respect to the housing, and generating the forward link communication signal comprising a modulated signal.

However, MacLellan discloses, in the art of tag identification system, a communication station remotely located with respect to the housing (Fig. 1, interrogator (103) remotely connected via LAN (102)) to extend the range of communication with the tag or transponder. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a communication station remotely located with respect to the housing in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches a communication station to communicate the remote device to extend the range of communication.

Likewise, Cuckler, teaches, in the art of remote communication system, base or repeater station generating the forward link communication signal comprising a modulated signal (Figs. 1, 3, col. 6, lines 41-52, modulated pulse signal forwarded via antenna 12 to antenna 13) for the purpose of extending the range of communication. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include base or repeater station generating the forward link communication signal comprising a modulated signal in the device of Wood as evidenced by Cuckler because Wood suggests a transmitter configured to generate the forward link communication signal and Cuckler teaches base or repeater station generating the forward link communication signal comprising a modulated signal for the purpose of extending the range of communication.

Regarding claim 2, Wood continues, as disclosed in claim 1, to disclose a driver amplifier to increase the power of the forward link communication signal (Fig. 7, preamplifier (79); col. 6, lines 30-42, power adjustable).

Regarding claim 3, MacLelland, as disclosed in claim 1, to disclose the communication station including the adjustment of an electrical characteristic of the forward link communication signal (Fig. 8, col. 7, lines 26-47, power adjustment associated with downlink transmission or interrogation transmission-100% AM or 50% AM or 100% power level and 50% power level).

All subject matters except a power amplifier in claim 6 are disclosed in claims 1 and 3. However, Wood discloses a power amplifier (Wood-Fig. 7, preamplifier (79)), and therefore, rejections of all subject matters expressed in claim 6 are met by references and associated arguments applied to rejections of claims 1 and 3, and the above disclosure of Wood.

Regarding claim 7, Wood continues, as claimed in claim 6, to disclose communication station is including an antenna to receive and radiate (Fig. 1, col. 5, lines 53-61, the device 12 as a cellular telephone associated base stations or communication stations or interrogators).

Regarding claim 8, Wood continues, as disclosed in claim 1, to disclose a radio frequency identification device (col. 4, lines 19-26, RF identification badge).

Regarding claim 64, Wood teaches the wireless communication system according to claim 1 wherein the forward link communication signal generated by the circuitry of the housing comprises data including command (col. 5, lines 34-52, common housing of host computer 48 and interrogator 26; interrogation signal or command).

All subject matters in claims 11-13 and 16-20 are disclosed in claims 1-3 and 6-10 and therefore, rejections of all subject matters expressed in claims 11-13 and 16-20 are met by references and associated arguments applied to rejections of claims 1-3 and 6-10.

Regarding claim 21, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system) comprising: a housing (col. 5, lines 34-38, common housing) including circuitry configured to generate a forward link communication signal (col. 5, lines 30-33 and lines 45-47, forward link command (or function) generated at the host computer acting as master or interrogator); and wherein the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal comprising a modulated signal (Fig. 5, digital transmit data or modulated signal via host computer, that is; signal transmitted by the host computer is digital signal modulating the continuous frequency generated by the frequency oscillator in the computer). But Wood does not disclose a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing; and station generating the forward link communication signal comprising a modulated signal.

However, MacLellan discloses, in the art of tag identification system, a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing (Fig. 1, interrogators (103) (or remote stations); multiple signals on interrogators) remotely connected via LAN (102)) to extend the range of communication with the tags or transponders. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to

include a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing to extend the range of communication with the tags or transponders.

Likewise, Cuckler teaches, in the art of remote communication system, base or repeater station generating the forward link communication signal comprising a modulated signal (Figs. 1, 3, col. 6, lines 41-52, modulated pulse signal forwarded via antenna 12 to antenna 13) for the purpose of extending the range of communication. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include base or repeater station generating the forward link communication signal comprising a modulated signal in the device of Wood as evidenced by Cuckler because Wood suggests a transmitter configured to generate the forward link communication signal and Cuckler teaches base or repeater station generating the forward link communication signal comprising a modulated signal for the purpose of extending the range of communication.

All subject matters in claim 22 is disclosed in claim 7 and therefore, rejections of all subject matters expressed in claim 22 is met by references and associated arguments applied to rejections of claim 7.

Regarding claim 24, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system). But

Wood is silent on communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station.

However, MacLellan discloses, in the art of tag identification system, communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station (Fig. 1, LAN (102) circuit is analogous to intermediate communication circuit) to extend the range of communication with the tags or transponders. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station to extend the range of communication with the tags or transponders.

Regarding claim 25, Wood In view of MacLellan discloses an interrogator according to claim 21 is a wireless communication system (Wood-col. 3, lines 53-60, wireless communication system); and the interrogator wherein the communication stations (MacLellan-Fig. 2, power associated with radio signal sources for plural interrogator stations 103...103 + N) are individually positioned to radiate the forward link wireless signal within one of a plurality of communication ranges (Wood-col. 6, lines 30-42, power adjustable device provide different ranges according to sensitivity of tag location).

Claims 27-29 and 33-34 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 1-3, 6 and 8. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 1-3, 6 and 8 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 27-29 and 33-34 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claims 27-29 and 33-34 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1-3, 6 and 8.

Regarding claim 65, Wood teaches the method according to claim 27 wherein the generating the forward link communication signal comprising data including command (col. 5, lines 34-52, common housing of host computer 48 and interrogator 26; interrogation signal or command).

Claims 35-37 and 41 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 11-13 and 16. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 11-13 and 16 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within

a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 35-37 and 41 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 35-37 and 41 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 11-13 and 16.

Claim 42 recites a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 11, 21 and 25. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 11, 21 and 25 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in claim 42 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claim 42 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 11, 21 and 25.

Regarding claim 51, MacLellan teaches the wireless communication system according to claim 1 wherein the communication station is configured to convert the forward link communication signal comprising the modulated signal from a first communication medium type (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits); modulated digital signal out of computer 101 associated with application processor) to a second communication medium type (Figs. 1-3, second

modulated signal out of 204) comprising a wireless medium and different than the first communication medium type.

Regarding claim 52, MacLellan teaches the wireless communication system according to claim 51 wherein the first communication medium type comprises a wired medium (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits)).

Regarding claim 53, MacLellan teaches the wireless communication system according to claim 1 wherein the communication circuitry comprises a wired medium configured to communicate the forward link wireless signal comprising the modulated signal intermediate the housing and the communication station (Figs. 1-3, first modulated signal within 101-102 and communication stations 103 (wired LAN circuits); digital signal out of computer).

Regarding claim 55, MacLellan teaches the method according to claim 35 wherein the radiating comprises converting the forward link communication signal comprising the modulated signal from a first communication medium type (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits)) to a second communication medium type (Figs. 1-3, second modulated signal out of 204) comprising a wireless medium and different than the first communication medium type.

Regarding claim 56, MacLellan teaches the method according to claim 55 wherein the first communication 'Medium type comprises a wired medium (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits)).

Regarding claim 57, MacLellan teaches the method according to claim 35 wherein the communicating comprises communicating the forward link wireless signal comprising the modulated signal from the housing using a wired medium (Figs. 1-3,

first modulated signal within 101-102 and communication stations 103 (wired LAN circuits); digital signal out of computer).

Claims 58-63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood, Jr. (5,842,118) in view of MacLellan et al. (5,649,296), Cuckler et al. (3,733,602) and Pidwerbetsky et al. (6,084,530).

All subject matters except generating a polling signal using circuitry of a source in claims 58 are disclosed in claims 1 and 51. However, Pidwerbetsky teaches, in the art of tag identification system, generating a polling signal using circuitry of an interrogator (col. 12, lines 12-18, polls by interrogators 103) and interrogator receiving information from application processor (col. 3, lines 32-55, source associated with application processor or pc 101) for the purpose of reducing collision of responding communications. Furthermore, one skilled in the art recognizes using circuitry of source associated with housing or pc and using circuitry of interrogator provide same interrogation process. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include generating a polling signal using circuitry of a source in the device of Wood because Wood suggests generating a forward link communication signal and Pidwerbetsky teaches generating a polling signal using circuitry of a source for the purpose of reducing collision of responding communications. Therefore rejection of the subject matters expressed in claims 58 are met by references and associated arguments applied to rejection of claims 1 and 51 and to rejection provided in the previous paragraph.

All subject matters in claim 59 are disclosed in claim 51, and therefore rejection of the subject matters expressed in claim 59 are met by references and associated arguments applied to rejection of claim 51.

All subject matters in claim 60 are disclosed in claim 8, and therefore rejection of the subject matters expressed in claim 60 are met by references and associated arguments applied to rejection of claim 8.

Regarding claim 61, MacLellan teaches the source comprises a housing and the first communicating comprises communicating externally of the housing (Fig. 1, first communicating is between housing 101 and interrogator or base station 103).

Regarding claim 62, MacLellan teaches the method of claim 58 wherein the modulating comprises RF modulating (Fig. 1, modulated rf signal to tag 105).

Regarding claim 63, Pidwerbetsky teaches the method of claim 62 wherein the modulating comprises RF modulating (Fig. 2, modulator 202 to generate modulated rf signal to specific tag 105 via antenna 204) a carrier signal (Fig. 2, carrier signal from radio signal source 201) using a data signal (Fig. 2, information signal 200a) configured to implement polling of the transponder (col. 12, lines 12-18, polling tags 105).

Regarding claim 66, MacLellan teaches the method of claim 58 wherein the second communicating comprises communicating using the communications station (Figs. 1-3, second modulated signal out of antenna 204 or 304).

Claims 9-10 and 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of MacLellan and Cuckler as applied to claim 1 above, and further in view of Bassirat (6,353,729).

Regarding claim 9, Wood in view of MacLellan and Cuckler teaches wired LAN system to interrogators (MacLellan-Fig. 1, interrogator as communication station 103). But Wood in view of MacLellan and Cuckler is silent on a coaxial RF cable associated with communication station

However, Bassirat teaches, in the art of network communication system, a coaxial RF cable associated with repeater station (col. 9, lines 11-18, coaxial cable associated with RF wherein the cable is used to extend the computer network via the repeater, and LAN is one of computer network architecture) for the purpose of extending the communication range. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a coaxial RF cable in the device of Wood in view of MacLellan and Cuckler as evidenced by Bassirat because Wood in view of MacLellan and Cuckler suggests wired communication system associated with LAN system and Bassirat teaches a coaxial RF cable associated with communication station for the purpose of extending the communication range.

Regarding claim 10, Wood in view of MacLellan and Cuckler discloses wireless LAN system to interrogators (MacLellan-Fig. 1, interrogator as communication station 103: Cuckler-Figs. 1 and 3, interrogator) as well as plural transceivers (Wood-col. 13, lines 44-50, plural wireless receiver and transmitter or transceivers via common antennas; Cuckler - Fig. 3, wireless interrogator).

Furthermore, Bassirat teaches, in the art of network communication system, a plurality of transceivers associated with repeater station (Fig. 5, plural transceivers associated with antennas having Gar and Gaff) for the purpose of extending the communication range. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a plurality of transceivers in the device of Wood in view of MacLellan and Cuckler as evidenced by Bassirat because Wood in view of MacLellan and Cuckler suggests wired communication system associated with LAN system and Bassirat teaches a plurality of transceivers associated with communication station for the purpose of extending the communication range.

All subject matters in claim 49 are disclosed in claims 1 and 9, and therefore rejection of the subject matters expressed in claim 49 are met by references and associated arguments applied to rejection of claims 1 and 9.

All subject matters in claim 50 are disclosed in claims 1 and 10, and therefore rejection of the subject matters expressed in claim 50 are met by references and associated arguments applied to rejection of claims 1 and 10.

Claims 4-5, 14-15, 23, 26, 30-32, 38-40, 46 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of MacLellan and Cuckler as applied to claims 1 and 3 above, and further in view of Lomp et al. (5,799,010).

Regarding claim 4, Wood in view of MacLellan and Cuckler continues, as disclosed in claim 3, to disclose the adjustment of electrical characteristics (MacLellan -Fig. 8, col. 7, lines 26-47, power adjustment associated with down link transmission- 100% AM or 50% AM). But Wood in view of MacLellan and Cuckler does not disclose the adjustment circuitry comprises automatic gain control circuitry.

However, Lomp discloses, in the art of communication power control system, the adjustment circuitry comprises automatic gain control circuitry (Figs. 29-30, col. 66, lines 44-65, AGC) for the purpose of power control of subscriber unit and base stations within communication system. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the adjustment circuitry comprises automatic gain control circuitry in the device of Wood in view of MacLellan and Cuckler as evidenced by Lomp because Wood in view of MacLellan and Cuckler suggests the adjustment of electrical characteristics and Lomp teaches the adjustment circuitry comprises automatic gain control circuitry for the purpose of power control of subscriber unit and base stations within communication system.

Regarding claim 5, Lomp continues, as disclosed in claim 4, to disclose the automatic gain control circuitry is configured to monitor the power and adjust the power (Figs. 29-30, power control system or monitoring system, col. 66, lines 44-65, AGC).

All subject matters in claims 14 are disclosed in claims 1 and 4 and therefore, rejections of all subject matters expressed in claims 14 are met by references and associated arguments applied to rejections of claims 1 and 4.

All subject matters in claims 15 are disclosed in claims 1 and 4-5 and therefore, rejections of all subject matters expressed in claims 15 are met by references and associated arguments applied to rejections of claims 1 and 4-5.

All subject matters in claim 23 are disclosed in claims 4 and 22 and therefore, rejections of all subject matters expressed in claim 23 are met by references and associated arguments applied to rejections of claims 4 and 22.

All subject matters in claims 26 are disclosed in claims 1-2 and 4-8 and therefore, rejections of all subject matters expressed in claims 26 are met by references and associated arguments applied to rejections of claims 1-2 and 4-8.

Claims 30-32 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 1 and 4-5. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 1 and 4-5 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in

Claims 30-32 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 30-32 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1 and 4-5.

Claims 38-40 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 14-15. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 14-15 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 38-40 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 38-40 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 14-15.

All subject matters in claim 46 are disclosed in claim 26 and therefore, rejections of all subject matters expressed in claim 46 are met by references and associated arguments applied to rejections of claim 26.

Regarding claim 54, Lomp teaches the wireless communication system according to claim 4 wherein the automatic gain control circuitry is configured to adjust the electrical characteristic of the forward link communication signal comprising the modulated signal which comprises a wired signal (Figs. 29-30, power control system or monitoring system of wired signal, col. 66, lines 44-65, AGC).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Freeze et al., Centralized Transponder Arbitration, US 6,313,737, 11/6/2001.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final act

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is (571) 272-3066. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Micheal Horabik, can be reached on (571-272-3068). The fax phone number for the organization where this application or proceeding is assigned is (703-305-3988).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matuichiro Shimizu

February 1, 2005

MICHAEL HORABIK
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